

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 109)

FOIL the expressions shown below:

1. $(6x - 8)(-2x - 4)$

$$\begin{aligned} & (6)(-2)x^2 + (6)(-4)x + (-8)(-2)x + (-8)(-4) \\ & (-12)x^2 + (-24)x + (16)x + (32) \\ & -12x^2 - 8x + 32 \end{aligned}$$

2. $(8x + 3)(-3x + 5)$

$$\begin{aligned} & (8)(-3)x^2 + (8)(5)x + (3)(-3)x + (3)(5) \\ & (-24)x^2 + (40)x + (-9)x + (15) \\ & -24x^2 + 31x + 15 \end{aligned}$$

3. $(-2x + 9)(9x - 5)$

$$\begin{aligned} & (-2)(9)x^2 + (-2)(-5)x + (9)(9)x + (9)(-5) \\ & (-18)x^2 + (10)x + (81)x + (-45) \\ & -18x^2 + 91x - 45 \end{aligned}$$

4. $(-7x + 4)(-9x - 5)$

$$\begin{aligned} & (-7)(-9)x^2 + (-7)(-5)x + (4)(-9)x + (4)(-5) \\ & (63)x^2 + (35)x + (-36)x + (-20) \\ & 63x^2 - x - 20 \end{aligned}$$

5. $(-7x + 2)(-8x - 2)$

$$\begin{aligned} & (-7)(-8)x^2 + (-7)(-2)x + (2)(-8)x + (2)(-2) \\ & (56)x^2 + (14)x + (-16)x + (-4) \\ & 56x^2 - 2x - 4 \end{aligned}$$

FOIL the expressions shown below:

6. $(-8x + 9)(5x + 8)$

$$\begin{aligned} &(-8)(5)x^2 + (-8)(8)x + (9)(5)x + (9)(8) \\ &(-40)x^2 + (-64)x + (45)x + (72) \\ &-40x^2 - 19x + 72 \end{aligned}$$

7. $(-5x - 6)(4x + 3)$

$$\begin{aligned} &(-5)(4)x^2 + (-5)(3)x + (-6)(4)x + (-6)(3) \\ &(-20)x^2 + (-15)x + (-24)x + (-18) \\ &-20x^2 - 39x - 18 \end{aligned}$$

8. $(-4x + 4)(3x - 9)$

$$\begin{aligned} &(-4)(3)x^2 + (-4)(-9)x + (4)(3)x + (4)(-9) \\ &(-12)x^2 + (36)x + (12)x + (-36) \\ &-12x^2 + 48x - 36 \end{aligned}$$

9. $(-8x + 2)(-4x + 7)$

$$\begin{aligned} &(-8)(-4)x^2 + (-8)(7)x + (2)(-4)x + (2)(7) \\ &(32)x^2 + (-56)x + (-8)x + (14) \\ &32x^2 - 64x + 14 \end{aligned}$$

10. $(4x - 7)(-2x - 5)$

$$\begin{aligned} &(4)(-2)x^2 + (4)(-5)x + (-7)(-2)x + (-7)(-5) \\ &(-8)x^2 + (-20)x + (14)x + (35) \\ &-8x^2 - 6x + 35 \end{aligned}$$